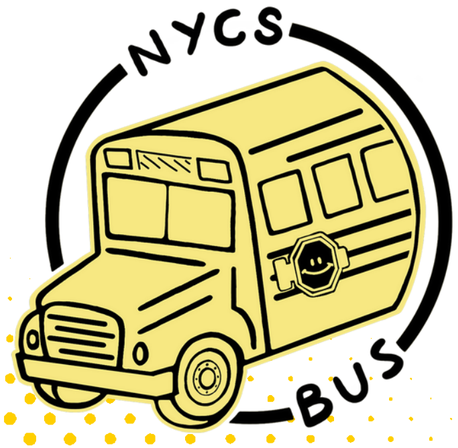


NYC School Bus Umbrella Services

Ensuring Safety through Data-Driven Approaches

MEET MATT

Matt Berlin is the Founding CEO of NYCSBUS, a nonprofit organization that operates over 800 school bus routes across New York City.

Under Matt’s leadership, NYCSBUS has become a leader in advancing the transition to electric buses, establishing itself as a model electric bus depot for the state of New York.

With a rich background in public transit, Matt has played a pivotal role in shaping NYC’s transportation landscape. Before launching NYCSBUS, he served as the first General Manager of Citi Bike, where he oversaw the successful launch and expansion of the nation’s largest
bike-share program. Earlier, during the Bloomberg administration, Matt managed New York City's school bus operations, bringing expertise and innovation to the city's student transportation system.

ABOUT NYCSBUS

NYCSBUS is a non-profit school bus company. We are currently responsible for operating **769 routes** and transporting over **9,000 students.** We strive to provide ***safe, sustainable, and reliable*** service to families and schools throughout NYC by using proactive, innovative, and data-driven approaches.

OUR MISSION

1. Provide great service for families and schools

2. Make busing better

3. Be transparent so that school districts can be better purchasers and managers of school bus service

SAFETY IN SCHOOL BUSING

Approximately

26 million

students rely on school buses daily nationally

There are over

480,000

school buses on the road daily nationally

Annually, an estimated

12,000

children are injured in school-bus related incidents nationally

SAFETY IN SCHOOL BUSING

NYCSBUS prioritizes safety at every stage: pickup, transit, and drop-off.

- New York ranks among the top states with the highest number of school bus crashes and fatalities, with 59 crashes and 59 fatalities reported between 2013 and 2022

- Most injuries occur during boarding or disembarking

What We’re Doing Now.

SAFETY INITIATIVES

- **Improved Driver Training**
- **Collaboration with Safer Roads**
- **Piloting advanced technology:**
  - Where’s My Bus
  - Surround-view Cameras
  - **Intelligent Speed Assistants (ISAs)**

Driver Safety Training and Awareness

Training Programs:

- **Behind The Wheel (BTW)** training for new employees
- Roll out of EV training videos
- Refresher courses for existing employees

Promoting Safety Culture:

- Encouraging safety discussions
- Recognizing and rewarding safe behavior

Resources:

- Access to safety manuals and guidelines
- Safety officers

Where’s My Bus?

Search Route

Search Route Details by Pupil Name

First / Last or Full Name

Search Route

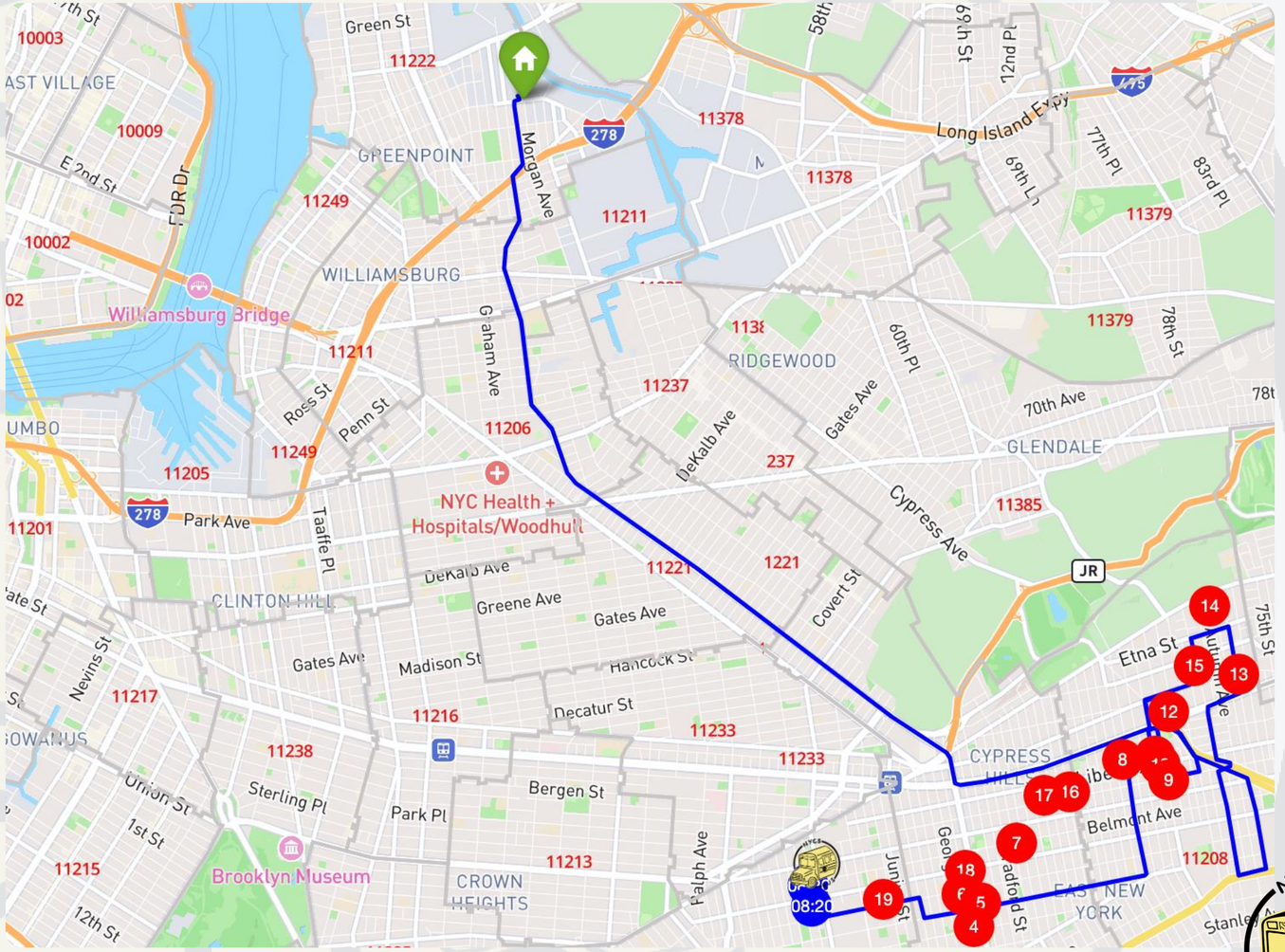
Search Route Details by Pupil Phone Number

########

Search Route

Search Route Details by Route ID

A123



Stop-Arm and Surround Cameras

We are working with NYC to pilot stop arm and surround cameras on 35 vehicles, aiming to enhance situational awareness.

01.

Stop Arm Cameras

02.

Quad Cameras

03.

360 Cameras

Intelligent Speed Assistance (ISAs)

Intelligent Speed Assistance (ISA) technology is an advanced driver assistance system designed to enhance vehicle safety by helping drivers adhere to speed limits. NYCSBUS is piloting 50 ISAs on buses.

How does it work?

ISAs use GPS data, camera-based speed recognition, and digital maps to detect speed limits on the road → Issues drivers an alert and automatically reduces engine power

Benefits to ISAs:

- **Reduction in Speed Related Crashes** - *shown to reduce traffic collisions by 30%*
- **Lower Injury Rates** - *shown to reduce injuries by 20% by avoiding high impact collisions*
- **Compliance with Speed Limits -** *urban research shown to increase compliance by 60%*

DATA-DRIVEN SAFETY

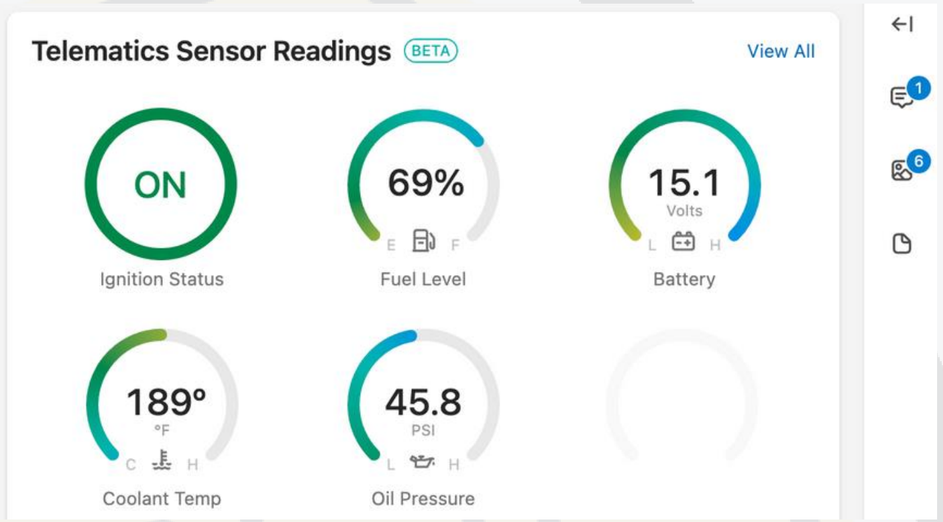
At NYCSBUS, we continuously collect and analyze data to inform our decisions.

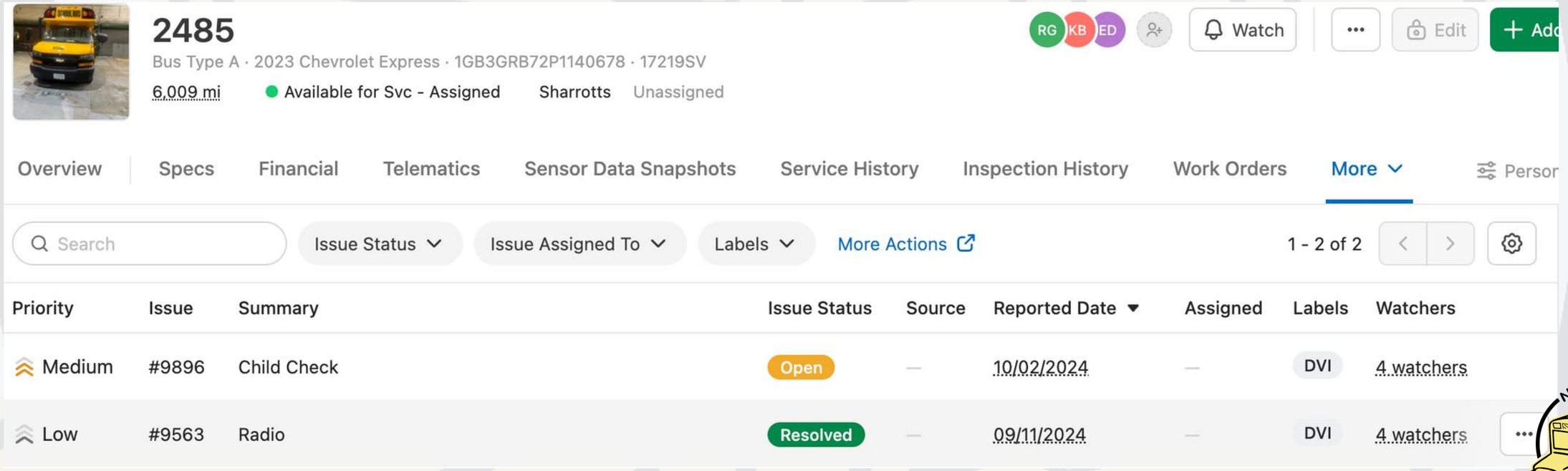
We monitor key info through various data systems and tools, including:

- **Fleetio (Fleet Management System)**
- **Performance Dashboard**
- **GEOTab**
- **Speeding Violations**

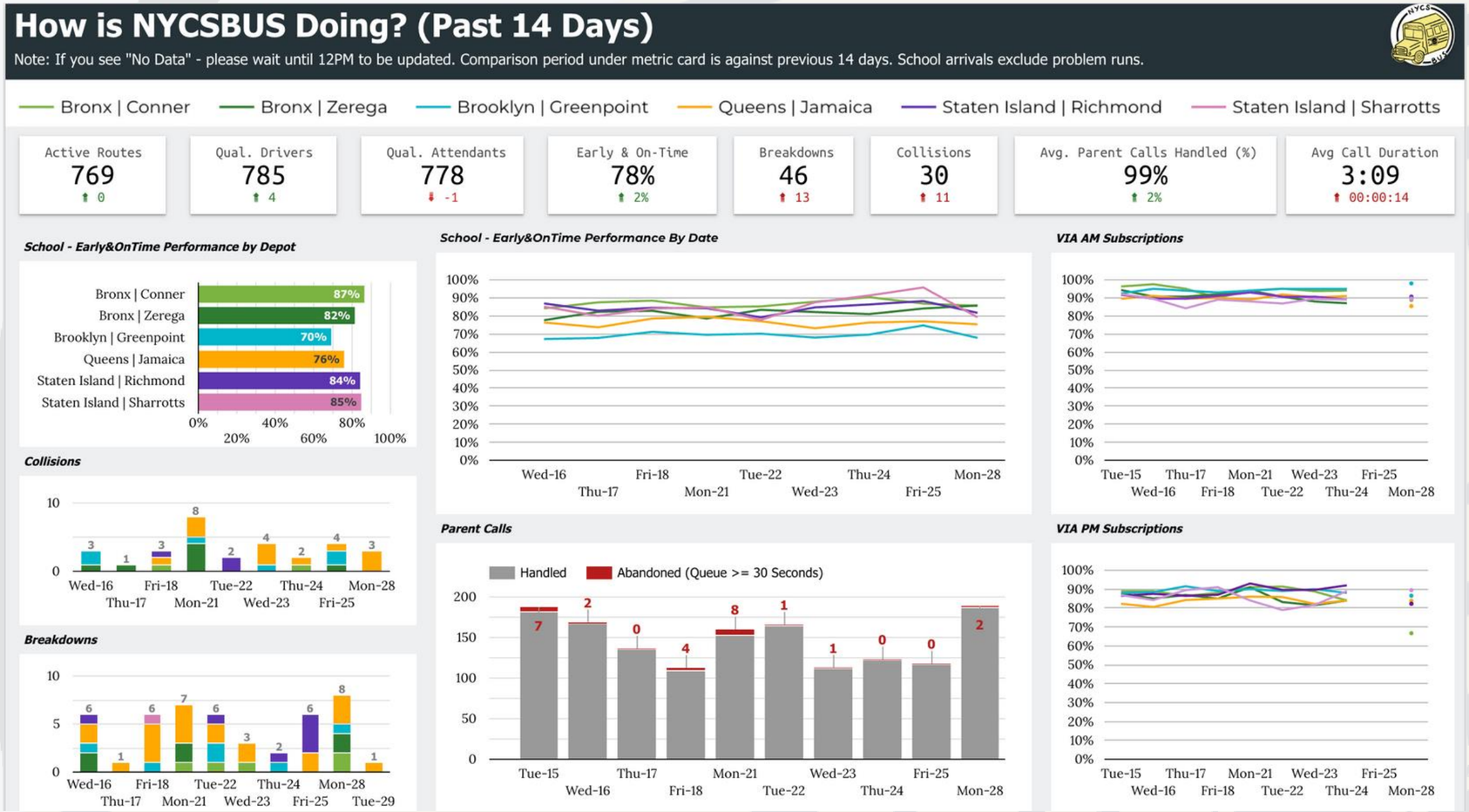
Fleetio

Fleetio is our Fleet Management System that catalogues each bus, provides telematics, and logs all issues. Provides real time tracking info and collision reconstruction.





Our Dashboard: KPI Consolidation

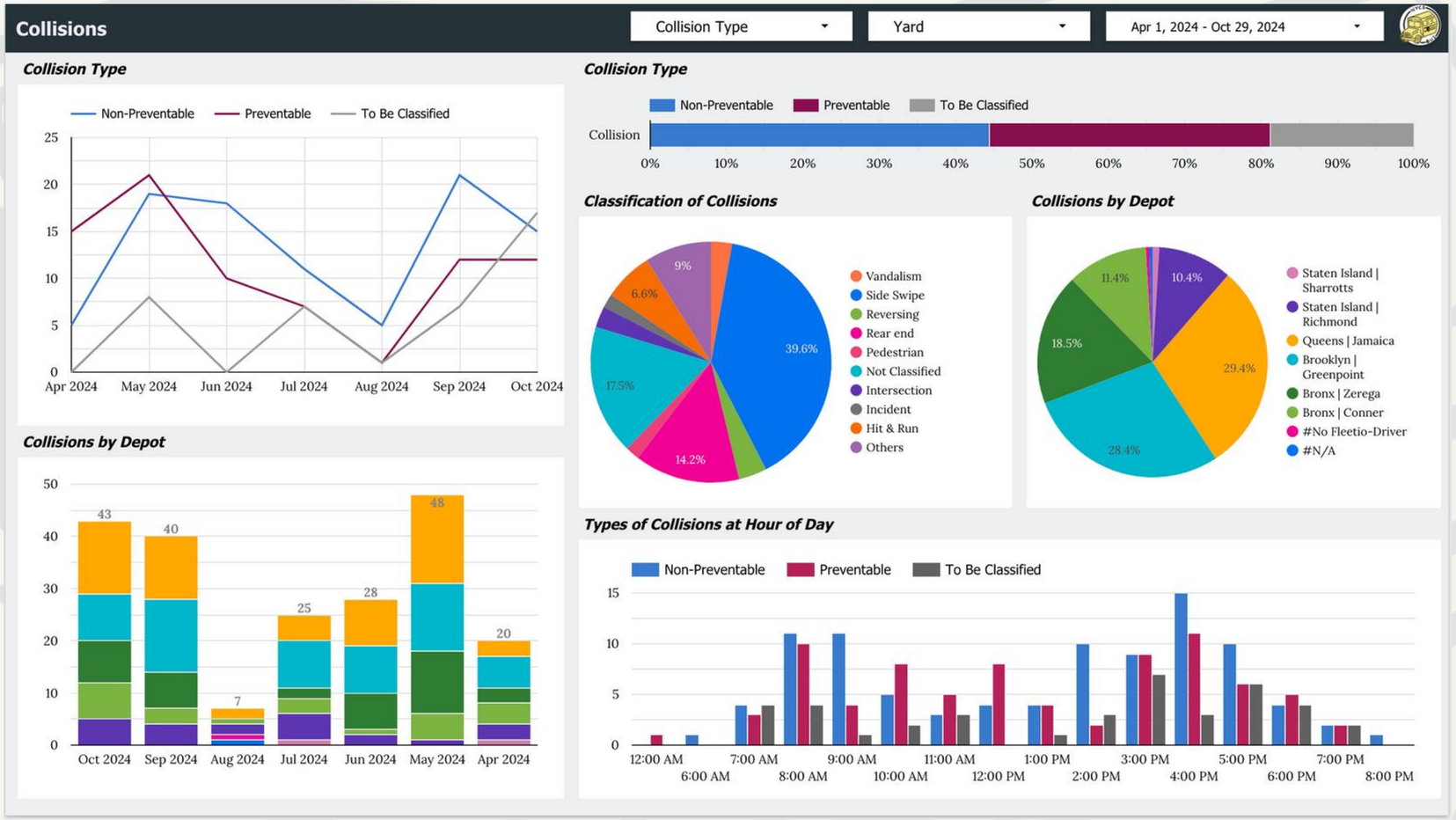


Logs:

- On Time Performance
- Collisions
- Breakdowns
- Parent Calls
- VIA subscriptioons

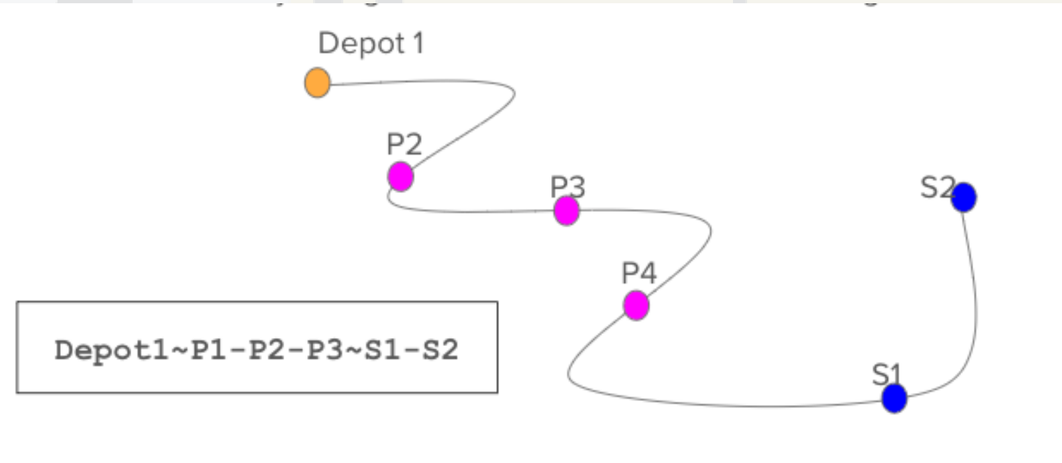
This is accessible for public view on our website: www.nycsbus.com

Our Dashboard: In Depth Collision Reporting



GEOTab

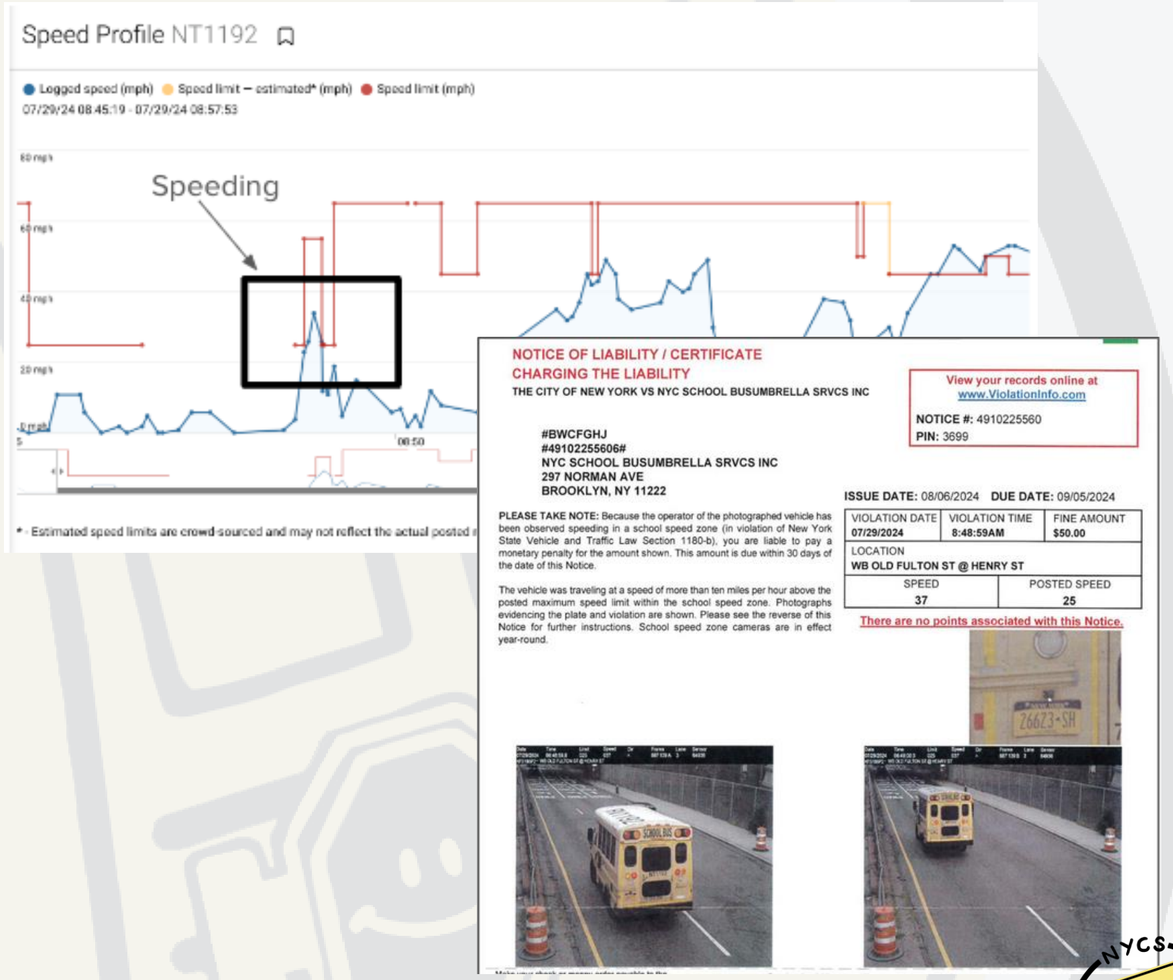
- Used for positioning, but also monitors safety measures such as harsh braking, turning, full-stops, idling time, etc.
- **GeoTab Route Recognition (GRR)** automatically recognizes route with 95% accuracy



Metric	Description
Start Date	Start Date of Analysis
End Date	End Date of Analysis
Bus_Geotab_ID	Geotab Serial Number (Unique ID)
Bus_Geotab_Name	The name associated with the Geotab serial
Engine_On_Minutes	Total minutes the engine was on that day.
Moving_Minutes	Minutes the vehicle was moving (not in park).
Above_25mph_Minutes	Duration that the vehicle was moving above 25 mph.
Above_25mph_Miles	Miles covered while moving above 25 mph.
Speed_Limit_Exceed_Minutes	Duration that the vehicle was moving above the speed limit
Speed_Limit_Exceed_Miles	Miles covered while exceeding the speed limit.
Harsh_Braking_Count	Count of harsh braking incidents.
Hard_Acceleration_Count	Number of hard acceleration incidents.
Hard_Cornering_Count	Number of hard cornering incidents.
Idling_Over_5_Min_Count	Number of times idling was over 5 minutes.
Idling_Over_3_Min_Count	Number of times idling was over 3 minutes (excluding school zones).
Seatbelt_Violation_Count	Number of seat belt violations.
Seatbelt_Violation_Minutes	Minutes/miles with no seatbelt.

Speeding and Parking Violations

- Verify speeding violations through speeding profile
- Use NYCOpen Data (available through Via) to cross reference and evaluate violations
- Corrective measures
  - Meeting with Driver and Union Rep to provide recommended course of action



What We’re Working On.

Driver Scorecard

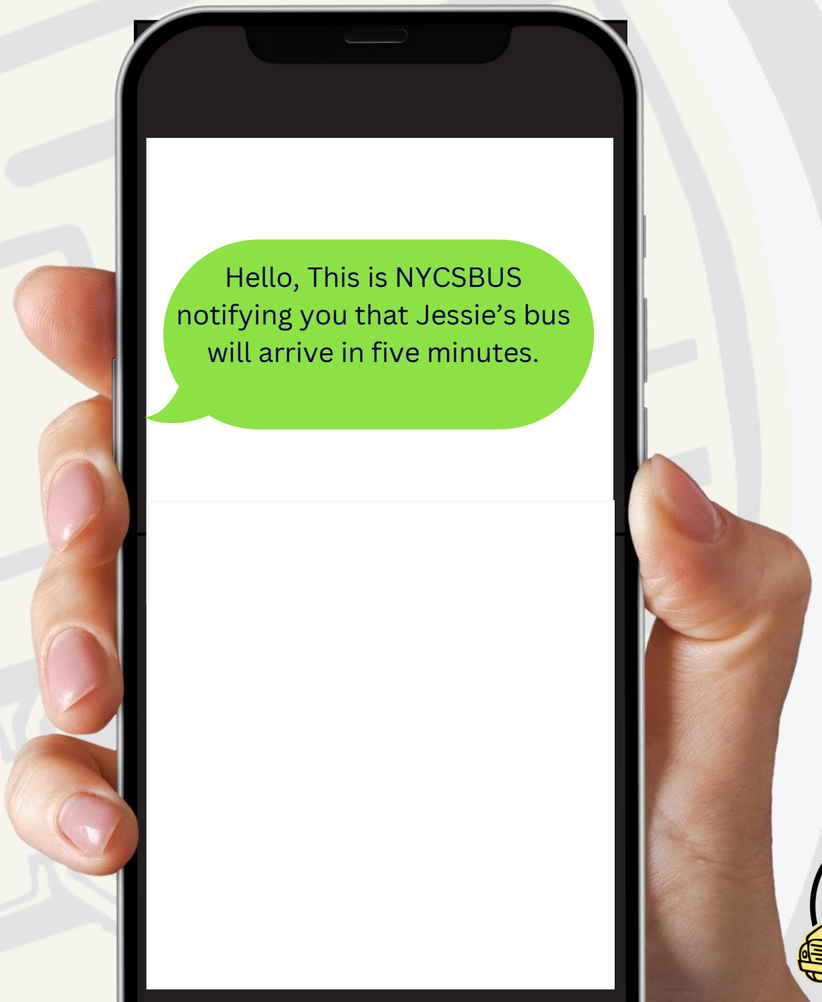
- Evaluates driver safety and performance based on driving, speeding, idling, seatbelt violations, accidents and breakdowns, DVI turn in rate

- Metrics tracked:
  - Speeding (GEOTab; ISA)
  - Collisions (Collision Tracker)
  - Camera Violations (DoT; MTA)
    - Speeding violations and bus lane violations

- Realtime Feedback:
  - Scorecard creates a culture of accountability through actionable feedback

NYCSBUS Notification System (NNS-TXT)

- An automated system to notify riders when vehicle is nearby:
  - Integrates with GeoTab
  - Traffic-aware ETA calculations
  - ZERO touch - no driver input required
  - Low cost cloud architecture
  - Compliant with latest data privacy and security
  - Easily inegrated into a web- or app-based notice system



Thank You